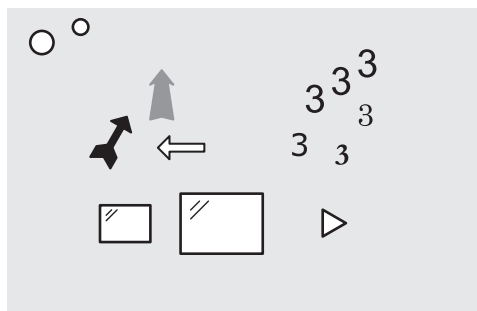


Gnoseology

IN THIS ARTICLE a theory of knowledge is presented based on the definitions used in the “Glossary of Ontology” of the previous issue and on the conclusions of the front page article in this issue.

The Whole is perceived by the human mind as being made up of elements of variable diversity. At first sight, elements are associated by mathematical (*quantity*), physical (*status*) or chemical (*substance*) affinity. This affinity is established by ideas that precede sensory experience and can trace their origins to the very structure of the human brain. In order to simplify the problem, let us consider the case of similarity in form, which is a type of mathematical affinity.



(0) From each group of like elements, the mind takes only one, in a passive attitude at the level of the senses (the outermost organs of consciousness) which entails no definition whatsoever.

What follows are the four actions that make up the process of knowledge (see the series of diagrams in the following column). In them the human being quits the passive attitude to intervene and contribute.

(I) The mind focuses attention on some of the elements that have been identified. In this action (*sentio* = to perceive), the universe is defined.

(II) The mind groups together the elements of the universe by involving mental processes that result in the definition of concepts (*conглоbo* = to group).

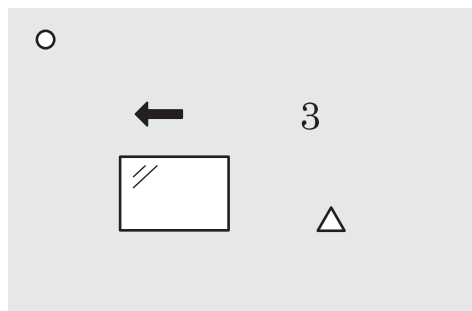
(III) An element with a reflective surface allows the human being to become aware of his own existence. This action (*speculo* = to look into the mirror, to contemplate) places the thinking being himself upon the board also and the universe is broadened.

(IV) The presence of another being who is capable of perceiving and grouping elements, and who can be seen reflected in the same mirror (second broadening of the universe), will cause the thinking being to define a new set in which he is also included (*congrego* = to gather).

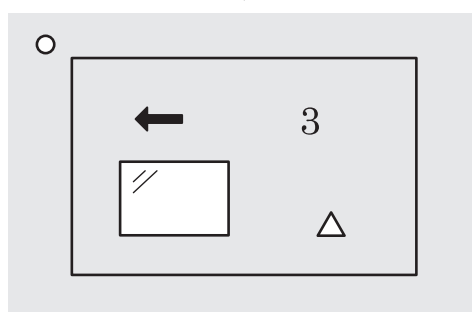
These actions are simple actions that can be associated to produce other, more complex ones and simplify the statements. Thus, for example:

$$\text{sentio} + \text{conглоbo} = \text{cogito}.$$

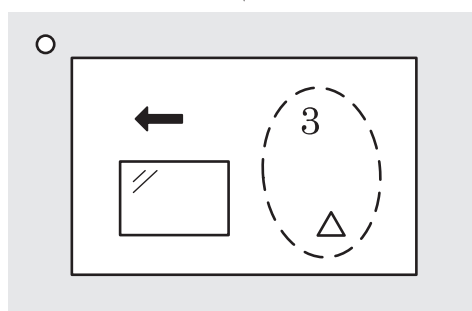
The complex action of thinking (= *cogito*) results from the sum of *perceiving* and *grouping*. On the other hand, belonging (= *pertino*)



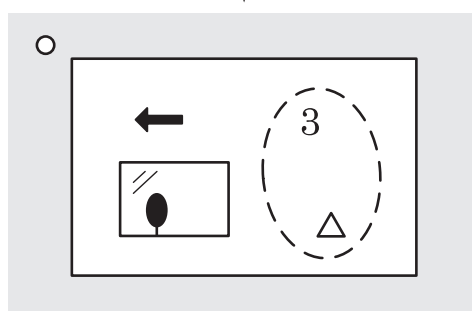
sentio ↓ I



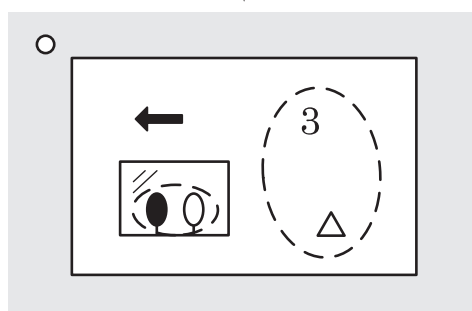
conглоbo ↓ II



speculo ↓ III



congrego ↓ IV



results from the sum of *seeing oneself in the mirror* and *gathering together with the peer*:

$$\text{speculo} + \text{congrego} = \text{pertino}.$$

It is then clear that, in this context, the verb “to belong” identifies an action.

(continued on page 3)

PRIMERA PLANA

Cogito ergo sisto, pertino ergo sum.

(viene de página 1)

sion then is: “If I think, I exist.” 2. The solution for the Peer Problem ends by affirming: “I belong.” Followed by the observation: “I am also within a set.” And, as shown in the previous issue, to belong to a set is to be (being something). The conclusion now is: “If I belong, I am.”

The two aforementioned conclusions were expressed in the form used by Augustine of Hippo: “*Si fallor, sum*,” that is, “*If I fail, I exist*.” While the form used by Rene Descartes is equally valid: “*Cogito ergo sum*,” provided it is interpreted as “*From the fact that I think, I conclude that I am*.” Both statements attest to the existence of the self itself and are therefore *unidirectional*, in the sense that they should not be interpreted backwards. That is why the following expressions are false: “I exist if I fail”, and, “I exist because I think.” The conclusions reached from the problems presented in this article may then be formulated as follows.

The Mirror Problem	
<i>Cogito ergo sisto.</i>	<i>I think, therefore I exist.</i>
<i>cogito ⇒ sisto</i>	

The Peer Problem	
<i>Pertino ergo sum.</i>	<i>I belong, therefore I am.</i>
<i>pertino ⇒ sum</i>	

Formally, the unidirectional connector uses the implication symbol: “ \Rightarrow .”

Ask Jotajota

Send your question to: jjluetich@luventicus.org

Miguel Ángel from Lima (PE) asks:

—What is the best definition for “the divisor of a number”?

—First we should remember that in the article called “*To be and to belong*” we spoke of “the natural divisors of a natural number n ”. In that case, the definition A_3 (“natural numbers that reduce n such that the results also belong to the set”) is the more elaborate one. This definition, for example, makes it simpler to introduce the concept of “prime number.” In fact, according to it, a natural number is a prime number when it does not have any divisors. However, the label of “best” should never be applied to a definition: given any two clear definitions, neither can be better than the other. Although it is true that if a definition is established for a specific application—as is the case with A_3 when used to study prime numbers—, it may be more practical for that purpose than others, we should still abstain from using the adjective “best.”

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The Etymology of Being (I)

THE GREEK VERB εἶναι (εἰμί = *I am*, εἶ = *you/thou are*, ἐστί(ν) = *he is*, ἐσμέν = *we are*, ἐστέ = *you/ye are*, εἰσί(ν) = *they are*) had the same two senses in ancient times as the verb “to be” has in English today, that is, those mentioned in the “*Glossary of Ontology*” of the previous issue (1a and 1b). [The form used for the third person singular, could use an *n* (ἐστίν) at the end, as in the stanzas of Parmenides’ poem that were included in the first issue.] In Latin this also happened sometimes with the verb *esse* (*sum* = *I am*, *es* < *ess* = *you/thou are*, *est* = *he is*, *sumus* = *we are*, *estis* = *you/ye are*, *sunt* = *they are*).

These Latin and Greek verbs are derived from the Indo-European root **h₁és-*. The forms for this verb, which arise from comparison of several languages, are: **h₁és-mi* = *I am*, **h₁és-si* = *you/thou are*, **h₁és-ti* = *he is*, **h₁s-mós* = *we are*, **h₁s-th₁é* = *you/ye are* and **h₁s-énti* = *they are*. The irregularities for the Latin verb are shown in the following table.

Indo-European	Latin	Greek
<i>*h₁és-mi</i>	<i>sum</i>	εἰμί
<i>*h₁és-si</i>	<i>es</i>	εἶ
<i>*h₁és-ti</i>	<i>est</i>	ἐστί
<i>*h₁s-mós</i>	<i>sumus</i>	ἐσμέν
<i>*h₁s-th₁é</i>	<i>estis</i>	ἐστέ
<i>*h₁s-énti</i>	<i>sunt</i>	εἰσί

The second and third person singular are regular:

**h₁és-si* > **h₁ési* > *es*,
**h₁és-ti* > *est*.

The second and third person plural followed a longer route:

**h₁s-th₁é* > **h₁sté* > **sté* > **este* > *estis*,
**h₁s-énti* > **sénti* > **sonti* > *sunt*.

What happened to the first person plural is harder to reconstruct. According to the suggestion made by Leonard R. Palmer (1906–1984) in his book, “*The Latin Language*”, changes in the third person plural would have had an influence over the evolution of the first person plural:

**h₁s-mós* > **smós* > **somos* > *sumus*, and that, in turn, would have dragged the first person singular along with it:

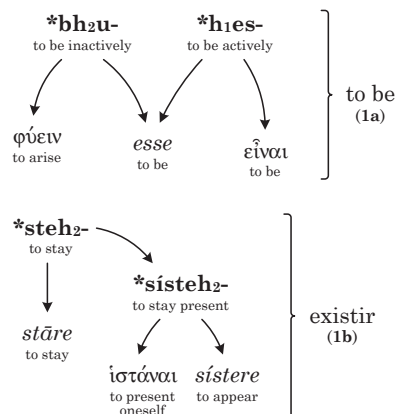
**h₁és-mi* > **ésmi* > *sum*.

Howsoever this history might have been, it is obvious that the plural and singular first persons have interacted. Nonetheless, no irregularities appear in the Greek verb.

Another very important Indo-European root in philosophy is **steh₂-* < **stHeh₂-*, from which the Latin verb *stāre* = *to stay*, (*stō* = *I stay*, *stās* = *you/thou stay*, *stat* = *he stays*, *stāmus* = *we stay*, *stātis* = *you/ye stay*, *stant* = *they stay*) derives. No Greek verb is directly derived from this root. But for the form that resulted from the reduplication, **sisteh₂-* < **stisteh₂-*, *stay present*, (**sisteh₂-mi* = *I stay present*, **sisteh₂-si* = *you/thou stay present*, **sisteh₂-ti* = *he stays present*, **sisteh₂-mos* = *we stay present*, **sisteh₂-th₁e* = *you/ye stay present* y **sisteh₂-enti* = *they stay present*), there is one. It is the verb ἵσταναι (*ίσταμι* < *ίσταμαι* (Ho-

meric, *στη*) = *I present myself*, ἵστης = *you/thou present yourself*, ἵστησι(ν) = *he presents himself*, ἵσταμεν = *we present ourselves*, ἵστατε = *you/ye present yourselves*, ἵστασι(ν) = *they present themselves*). The interesting thing is that the same root resulted in the Latin verb *sistere* = *to appear, to present, to stand* (*sistō* = *I appear*, *sistis* = *you/thou appear*, *sistit* = *he appears*, *sistimus* = *we appear*, *sistitis* = *you/ye appear*, *sistunt* = *they appear*). The root **steh₂-*, would reference to *stay* in the case of beings that perform the action *speculo* (those which *actively* are). For those beings that not perform the action *speculo* (those which *inactively* are), there was another root, **bh₂u-* < **bh₂uH-*. Both roots were already being confused in the late Indo-European, that is, the difference (which was much more than just a subtlety) between the action of appearing of inanimate entities (those that *inactively* are) and the action of appearing of animate entities (those that *actively* are) was not noted by that time. The Greek verb φύνειν (*φύω*, *φύεις*, *φύεις*, *φύομεν*, *φύετε*, *φύουσιν*), is derived from the root **bh₂u-* which had the meaning of *to arise, to emerge*. In Latin, traces of this root are still found in the form *fuí* of the verb *esse*.

Everything that has been said so far is shown in the following diagram, where the



theory of knowledge that was described in the main article can be seen to be entirely consistent with the structure of Indo-European verbs: (1) to be and to stay are independent ideas (roots) [in the “*Glossary*” it said: “(the elements in the grey region) ‘stay there’ but they not are”]; (2) the verb “to exist” arises from the reduplication of the verb “to stay” (differentiation between to be and to be present) and therefore the idea of “to exist” is a subsequent idea to that of “to be”, which probably served to distinguish “to stay present” from “to stay” [in the “*Glossary*” it said: “essence is more than mere existence”]; (3) in Indo-European there were two verbs for “to be”, one for inanimate entities and another for animate entities [in the front page article a different proposal is made for each one of them, *cogito versus pertino*, which resolves three, by no means minor, issues: the sense that should be given to the words «inanimate», when associated to «Nature», «soul» and «thinking»].

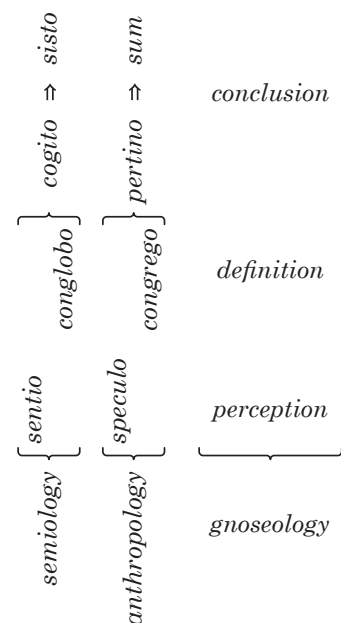
MAIN ARTICLE

Gnoseology

(continued from page 2)

Gnoseology is the field that studies the process of knowledge, which consists of two actions: *perception* and *definition*, successively applied to entities different of the thinking being and to the thinking being himself (and his peers). Together with semiology and anthropology, it is part of that body of knowledge called *the humanities*, which is not the nucleus of philosophy (ontology-dialectics-logic) but is linked to it because its subject is directly related—although in a different way—with being. Semiology is mostly concerned with the action *cogito*; anthropology, with the action *pertino*.

Many theories of knowledge have been developed throughout the history of Western thought. Each philosopher has created or adhered to one. The theory showcased in this article owes some of its elements to Plato, to the great French philosopher Rene Descartes—in whose honor the title was chosen—to the English thinker John Locke (1632–1704), and to the Prussian philosopher Immanuel Kant. The contents of



the article was summarized in the diagram.

Ask Jotajota (cont.)

Send your question to: jjluetich@luventicus.org

Alexander from Medellín (CO) asks:

—What is the difference between semantics and semiology?

—Semantics is the study of the relationship between words and their meaning. Therefore, since words are a kind of sign and their sense is a kind of meaning, semiology enclose semantics. Taking into account what was said in the “*Glossary of Ontology*” of the previous issue, semantics is also closely related to ontology. For example, when we ask: “What is a sport?” both, semantics and ontology will provide answers. The first tends to be a dictionary-like definition while the second is more rigorous, encompassing and clarifying.